

Proba 1

(a)

```
mkdir -p "Cartoons/Cartoon Network/Looney Tunes"
```

```
cd "Cartoons/Cartoon Network/"
```

```
touch "Bugs Bunny.txt"
```

...

(b)

```
cd ~/Cartoons
```

```
echo "Finn and Jake" > "Cartoon Network/.Adventure Time"
```

(c)

```
cd ~/Cartoons
```

```
cp */*.txt "Favourite Charecters"
```

(d)

```
cd "~/Cartoons/Cartoon Network/"
```

```
mkdir "Teen Titans"
```

```
touch "Teen Titans/"new_character_{1..50}
```

Proba 2

(a)

```
rsync -avu source_directory/ destination_directory
```

(b)

```
find destination_directory -type f -exec chmod a-w {} +
```

(c)

```
diff -rq source_directory destination_directory > reports.txt
```

(d)

```
for file in $(find destination_directory -name "*.txt"); do mv "$file" "${dirname "$file"}/.${(basename "$file")}"; done
```

Proba 3

(a)

```
sudo du -sh /var/log
```

(b)

```
for i in $(seq 2024); do echo 'Ac@dnet$' >> acad_out.txt; done
```

(c)

```
sudo cat /etc/shadow | grep -o c | wc -m
```

(d)

```
free -k
```

Proba 4

(a)

```
sudo adduser lambda
```

(b)

```
sudo apt install zsh
sudo chsh -s $(which zsh) lambda
(c)
su - lambda
touch hot_potato
chmod 721 hot_potato
(d)
su - student
sudo visudo # adaugat o linie precum lambda    ALL=(ALL:ALL) ALL
su - lambda
sudo chown root hot_potato
```

Proba 5

```
(a)
pstree -p
(b)
sudo ps -u root -o pid,ppid,user,cmd
(c)
pgrep -P 1
(d)
echo $$
(e)
ps --no-header -u root -o pid,user,%mem | sort -nrk3 | head -n5
```

Proba 6

```
(a)
grep -E '^[a-zA-Z][a-zA-Z0-9._]*@[a-zA-Z]+\.[a-z]{2,4}$' company_emails.txt > filtered.txt
cat filtered.txt
wc -l filtered.txt
(b)
grep "\.com$" filtered.txt > valid_emails.txt
(c)
sed -E 's/@[a-zA-Z]+\./@christmasparty./g' valid_emails.txt > christmas_emails.txt
```

Proba 7

```
(a)
sudo find /var/log/ -name "*.log" -exec basename {} \; > logs.txt
(b)
sudo find /var/log/ -type f -mmin -10 -print0 | xargs -0 tar -cvf archive.tar
(c)
sudo find /var/log/ -type f -mmin -5 -print0 | xargs -0 tar -rvf archive.tar
(d)
tar -tvf archive.tar
```

Proba 8

```
(a)
git config --global user.name <nume>
git config --global user.email <email>
(b)
```

```
mkdir Elevi
cd Elevi
git init
(c)
echo "Romana: 8,5 | Matematica: 9,5 | Informatica: 10" > Haralambie
(d)
git add Haralambie
git commit -m "Elev adaugat"
git log
```

Proba 9

```
(a)
lscpu | grep "L[1-3].*cache"
(b)
lscpu | grep -o aes
(c)
lshw -c display
(d)
lspci -vvv | grep Ethernet -A 20 | grep driver | head -n1
```

Proba 10

build: main

```
main: main.c secret.o second_secret.o
    gcc main.c secret.o second_secret.o -o main
```

```
run: main
    ./main
```

```
clean:
    rm main
```

.PHONY: clean